

IN THE ABSTRACT

Please add the Abstract appearing on the following page:

## ABSTRACT OF THE DISCLOSURE

The encoder transforms the audio signals  $(x(n), y(n))$  from the time domain to audio signal  $(X(k), Y(k))$  in the frequency domain, and determines the cross-correlation function  $(R_i, P_i)$  in the frequency domain. A complex coherence value  $(Q_i)$  is calculated by summing the (complex) cross-correlation function values  $(R_i, P_i)$  in the frequency domain. The inter-channel phase difference  $(IPD_i)$  is estimated by the argument of the complex coherence value  $(Q_i)$ , and the inter-channel coherence  $(ICI)$  is estimated by the absolute value of the complex coherence value  $(Q_i)$ .